



Permeable and Secure
Encapsulation of Polluted Soil

IN SITU

Simple, Fast, Safe, and Sustainable



A Rehabilitation Project : “What should we be done with polluted soil from excavations ?”

Transporting soil to specialized facilities is **expensive, time-consuming**, and generates a **high carbon impact**. Temporary storage creates **contamination risks** for soil and groundwater. Traditional techniques such as **biopiles** or **encapsulation** can provide solutions, but they involve constraints in terms of **implementation, space, project timelines**, and they do **not truly treat the pollutants**.

Thanks to **MP Cocoon**, it is now possible to treat pollution **directly on site** with **rapid implementation** and a **shortened timeframe** before the land is ready for reinstatement. **MP Cocoon ensures control and long-term durability for your project.**

Our solution

MP Cocoon is a **technical geosynthetic system** that encapsulates polluted soils while allowing their **progressive in situ decontamination**, securing the risks of pollutant migration.

It relies on a unique combination of processes:

- **A biological and fungal blend** enabling the natural degradation of hydrocarbons and biodegradable pollutants.
- **Activated carbons (biochar)** and **selective media** that trap and sequester heavy metals and PFAS.
- **Oxygenation tubes** that maintain an active biotope, even several meters deep, ensuring long-term treatment.

Once the soils are placed inside the cocoon, they are treated in situ, without the need for **transport, storage, or heavy transformation**.



How the MP Cocoon System Works

- 1 Polluted soils are placed in successive layers, 40 to 80 cm thick.
- 2 Between each layer, the Cocoon composite is installed and sealed by heat welding.
- 3 The entire system is closed with a final functionalized geosynthetic, forming a pollution-tight cocoon.
- 4 Rain and runoff water infiltration triggers a natural degradation and sequestration process of pollutants as they pass through the geotextiles.
- 5 With the oxygenation tubes, the system can be reactivated or reinforced at any time by injecting complementary biological solutions.

MP Cocoon, an Innovative Solution for Polluted Soils

MP Cocoon is a **hybrid and innovative solution** combining the advantages of **bioremediation** and **encapsulation**, while overcoming their traditional limitations.

Designed as an **evolving and interactive system**, it adapts to your project's needs and supports its performance over time.

By choosing MP Cocoon, you are opting for a solution that is both **responsible and competitive**, capable of significantly reducing **costs** and **carbon footprint**, while complying with the **strictest environmental regulations**.

Key Advantages

Time saving
The land is quickly freed for new uses.

Safety
Pollutants are confined and neutralized.

Cost efficiency
Drastic reduction in transport and logistics costs.

Environmental sustainability
Low-carbon solution integrated into the local ecosystem.



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